

California Water Plan Update 2013 Topic-Based Caucuses

Presentation for Regional Forums

Update 2013 Outreach Venues

- ❁ State Agency Steering Committee (*30 State Agencies*)
- ❁ Federal Agency Network
- ❁ Tribal Advisory Committee
- ❁ Public Advisory Committee
- ❁ Regional Forums



❁ Topic-based Caucuses

- ❁ SWAN - Statewide Water Analysis Network
- ❁ Annual Plenary Meetings

Content Enhancements

➤ Integrated Water Management

- Expand on water quality
- Continue integrated flood mgmt
- Expand on groundwater
- Add near coastal resources

➤ Regional Planning

- Expand on land use & water mgmt nexus
- Incorporate UWMP content
- Expand economic & financial planning

➤ Data, Metrics & Analysis

- Improve data mgmt & sharing
- Enhance inter-disciplinary technical analyses
- Develop metrics & sustainability indicators
- Develop CA Water Mgmt Progress Report

➤ Adaptive Management

- Revisit environmental water concept
- Use Living Document approach
- Use multiple & shorter planning horizons
- Identify outdated water codes & laws



California Water Plan Update 2013

Early FOCUS Topics / Caucuses

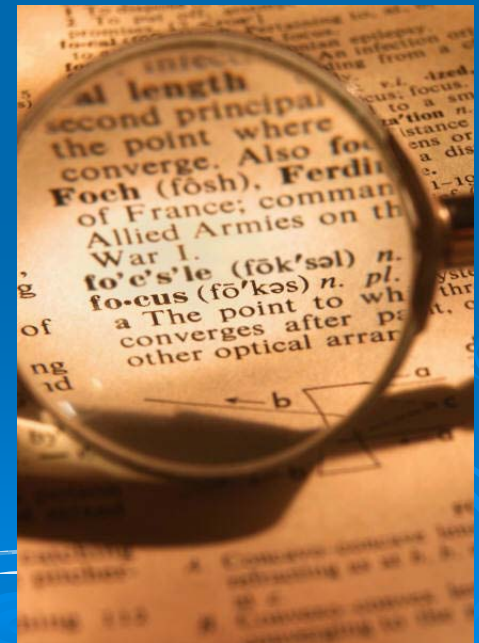
- ✿ **Update 2013 Finance Planning**

- ✿ Reinventing Regional Reports

- ✿ **Groundwater**

- ✿ Statewide Integrated Flood Planning

- ✿ New Water Technology / R&D



Water Plan Update 2013

Integration of Update 2013 Groundwater Content Enhancements

Strategic Plan

Relevance to Groundwater Content Enhancements

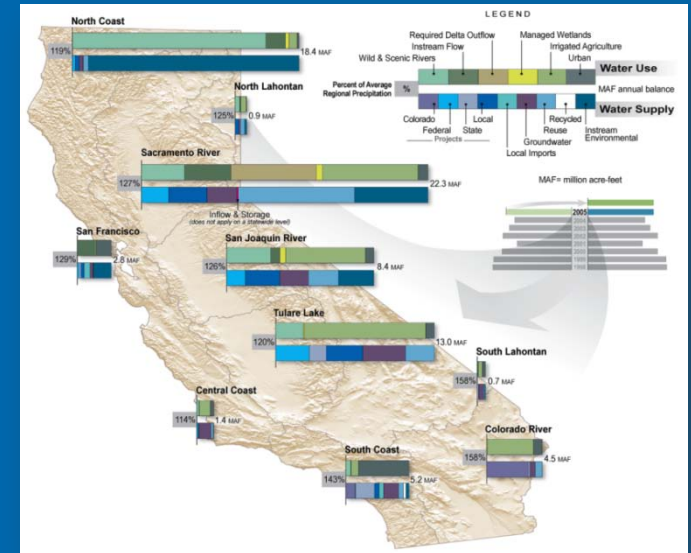
- Update 2005 Strategic Plan informed Proposition 84 language
- Update 2009 Strategic Plan informed Update 2013 groundwater content enhancement work plan and priorities
- Both will evolve into the basis for Update 2013 Groundwater work plan, analysis and recommendations
- High-level groundwater policy recommendations will be published in Update 2013 Strategic Plan



Water Portfolios

Relevance to Groundwater Content Enhancements

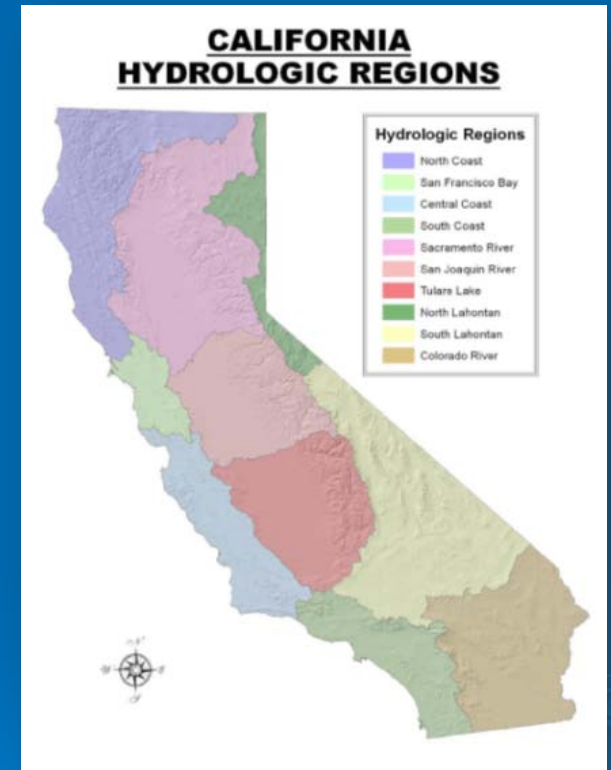
- Context for historical water use and corresponding supply sources (*Groundwater is largely a balancing term due to lack of data*)
- Articulates statewide *and* regional water use and supply sources
- Used to identify trends, challenges and opportunities at the statewide and regional scales
- Update 2013 water portfolios will include groundwater data and computation enhancements; including change in storage



Regional Reports

Relevance to Groundwater Content Enhancements

- Articulation of information, data, challenges, opportunities and regional resource management objectives
- Groundwater conditions, challenges, proposals and priorities will be described in regional reports
- Ensure regionally relevant solutions
- Case study will be published in corresponding Regional Report

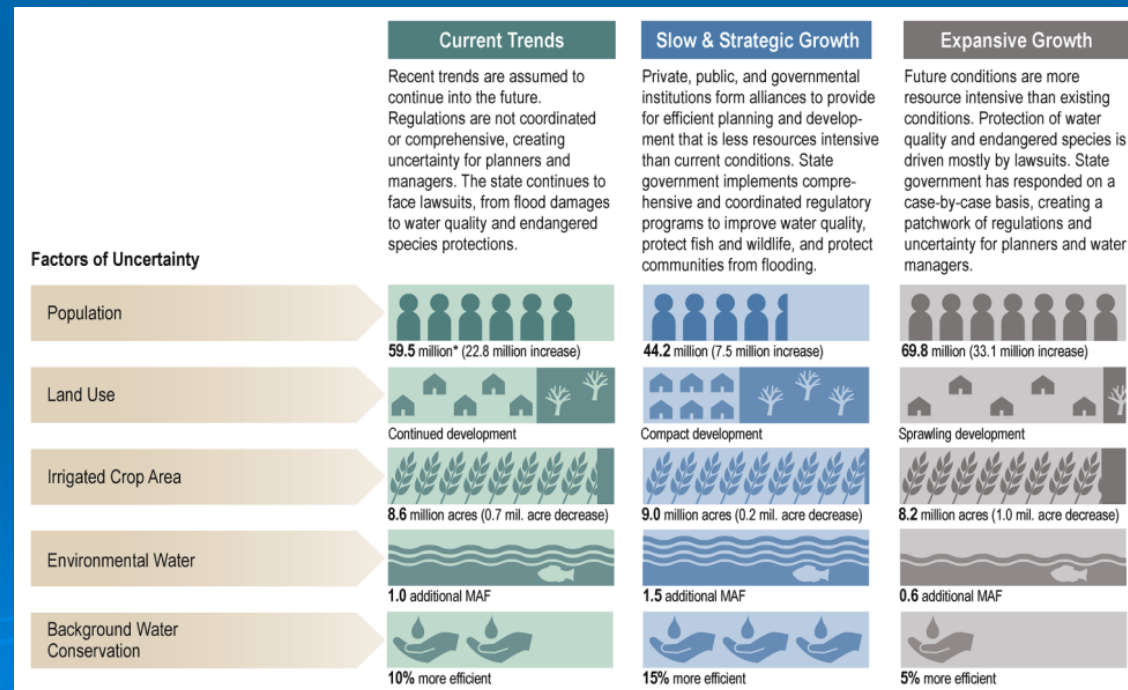


Water Plan Update *Future Scenarios*

Relevance to Groundwater Content Enhancements

- Three plausible sets of future conditions that can affect the necessity for (and performance of) management strategies

- Used to assess trade-offs and resiliency of resource management strategy packages to guide groundwater action and policy recommendations



Water Plan Update *Resource Management Strategies* Relevance to Groundwater Content Enhancements

Many groundwater policy and action recommendations will be drawn from menu of Resource Management Strategies

- Update 2009 strategies included conjunctive use, groundwater storage, recharge area protection, aquifer remediation, etc

One source of information for estimating groundwater management strategy costs

California Water Plan Update 2019 | Highlights Integrated Water Management

Resource Management Strategies:

A Range of Choices

Integrated water management undertakes water and flood management at all fronts and on many levels—regionally and statewide, for multiple uses and benefits, for sustaining watersheds, water users, and water and food management systems, while weighing the risks of uncertain futures.

The 27 resource management strategies presented here provide a range of choices and are the building blocks for this approach.

The strategies are grouped by their intended outcome, and the potential benefits and implementation cost are presented for each strategy.

| Potential Strategy Benefits | | | | | | | | | |
|--|---|-------------------------------|---|--------------------------------------|-------------------------------|-------------------------------|---------------------------------------|--------------------------------------|--|
| Provide Water Supply Benefit $\$M/year^A$ | Increase Storage/Packaging Potential $M³/year$ | Increase Water Quality $%$ | Increase Resilience & Mitigation Risk $\%$ | Reduce Food Production Risks $\%$ | Ecosystem Restoration $\%$ | Energy Benefits $GWh/year$ | Renewable Opportunities $TWh/year$ | Reduce GHG Emissions $kTons/year$ | Accumulated Cost by 2050 (\$ Billions) |

Reduce Water Demand

Water conservation has become a viable long-term supply option because it saves considerable capital and operating costs for utilities and consumers, avoids environmental degradation, and creates multiple benefits.

| Strategy | \$M ^a /year ^b | Potential Strategy Benefits | Accumulated Costs by 2050 (\$ Billions) ^c |
|-----------------------------------|-------------------------------------|-----------------------------|--|
| Agricultural Water Use Efficiency | $\pm 0.1\text{--}0.8$ | [Icons] | 0.3–4.0 |
| Urban Water Use Efficiency | $\pm 12\text{--}31$ | [Icons] | 2.5–6.0 |

Improve Operational Efficiency & Transfers

California's water system responds to our need to move water from where it occurs to where it will be used.

| Strategy | \$M ^a /year ^b | Potential Strategy Benefits | Accumulated Costs by 2050 (\$ Billions) ^c |
|---------------------------|-------------------------------------|-----------------------------|--|
| Conveyance—Delta | $\pm 0.1\text{--}0.6$ | [Icons] | 12–172 |
| Conveyance—Regional/Local | [Icon] | [Icons] | ??? |
| System Rationing | [Icon] | [Icons] | ??? |
| Water Transfers | [Icon] | [Icons] | ??? |

Increase Water Supply

California's communities are finding innovative ways to generate new supplies.

| Strategy | \$M ^a /year ^b | Potential Strategy Benefits | Accumulated Costs by 2050 (\$ Billions) ^c |
|--|-------------------------------------|-----------------------------|--|
| Conjunctive Management & Groundwater Storage | $\pm 0.3\text{--}2.0$ | [Icons] | ??? |
| Dessalination — Brackish & Seawater | $\pm 0.3\text{--}0.4$ | [Icons] | 0.9–29 |
| Precipitation Enhancement | $\pm 0.3\text{--}0.6$ | [Icons] | 0.2 |
| Recycled Municipal Water | $\pm 0.9\text{--}1.4$ | [Icons] | 6.0–9.0 |
| Surface Storage—CALFED ^d | $\pm 0.1\text{--}1.1$ | [Icons] | 0.2–7.8 |
| Surface Storage—Regional/Local under development | [Icon] | [Icons] | ??? |

As California changes, local agencies and governments continue to use different methods for managing water resources. Growing population, changing regulations, and evolving public attitudes and values are a few conditions that are influencing water decisions. No single response package will work for all areas of California. Facing an uncertain future, regions need to invest in an appropriate mix of strategies based on integrated regional water management plans that are diversified, satisfy regional and state needs, meet multiple resource objectives, include public input, address environmental justice, mitigate impacts, protect public trust assets, and are affordable.

Improve Water Quality

Improved water quality can directly improve the health of Californians and our ecosystem.

| Strategy | \$M ^a /year ^b | Potential Strategy Benefits | Accumulated Costs by 2050 (\$ Billions) ^c |
|---|-------------------------------------|-----------------------------|--|
| Drinking Water Treatment and Distribution | ± 0 | [Icons] | 1.4 year |
| Cowpasture/Aquifer Remediation | ± 0 | [Icons] | 20.0 |
| Machinery Quality Upgrades | ± 0 | [Icons] | 0.1 |
| Pollution Prevention | ± 0 | [Icons] | 21.0 |
| Silt and Salinity Management | ± 0 | [Icons] | >10.0 |
| Urban Runoff Management | ± 0 | [Icons] | ??? |

Practice Resource Stewardship

We must protect other resources as we make water supplies available for other beneficial uses.

| Strategy | \$M ^a /year ^b | Potential Strategy Benefits | Accumulated Costs by 2050 (\$ Billions) ^c |
|--|-------------------------------------|-----------------------------|--|
| Agricultural Lands Stewardship | ± 0 | [Icons] | 5.3 |
| Economic Incentives Loans, Grants, Water Pricing | ± 0 | [Icons] | ??? |
| Ecosystem Restoration | ± 0 | [Icons] | ??? |
| Forest Management* | $\pm 0.1\text{--}0.4$ | [Icons] | 0.3–0.8 |
| Land Use Planning and Management | ± 0 | [Icons] | ??? |
| Recharge Area Protection | ± 0 | [Icons] | ??? |
| Water-dependent Recreation | ± 0 | [Icons] | ??? |
| Watershed Management | ± 0 | [Icons] | 0.5–3.6 |

Improve Flood Management

| Strategy | \$M ^a /year ^b | Potential Strategy Benefits | Accumulated Costs by 2050 (\$ Billions) ^c |
|-----------------------|-------------------------------------|-----------------------------|--|
| Flood Risk Management | ± 0 | [Icons] | ??? |

A. Numbers are for Moderate Restoration only.

1. Additional information is found in Volume 2.
2. Value is per liter to account for water reuse among agricultural water users.
3. Reflects cost reduction or virtual water benefit which is not the full cost of the project.

Find descriptions of 27 resource management strategies in Volume 2

Finance Planning

Relevance to Groundwater Content Enhancements

- Update 2013 will include a new financial planning feature that will be informed by the groundwater content enhancements



Water Plan Update 2009

*A Foundation for
Update 2013 Finance Plan*

Update 2013 Finance Plan

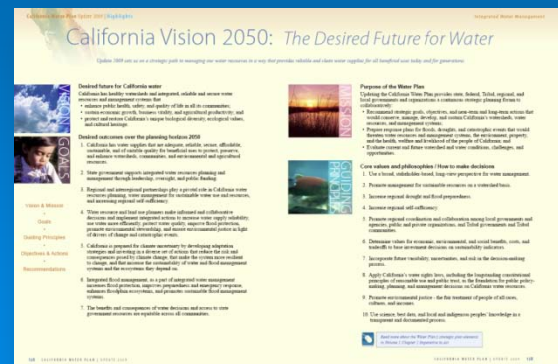
Implementing Update 2009

“California needs a water finance plan with stable, continuous funding from an array of revenue sources... The finance plan should recognize the critical role of public-private partnerships and the principle of beneficiary pays; include alternative revenue sources; and guide investment decisions based on sustainability indicators”.

California Water Plan Update 2009

Water Plan Update Strategic Plan Relevance to Finance Plan

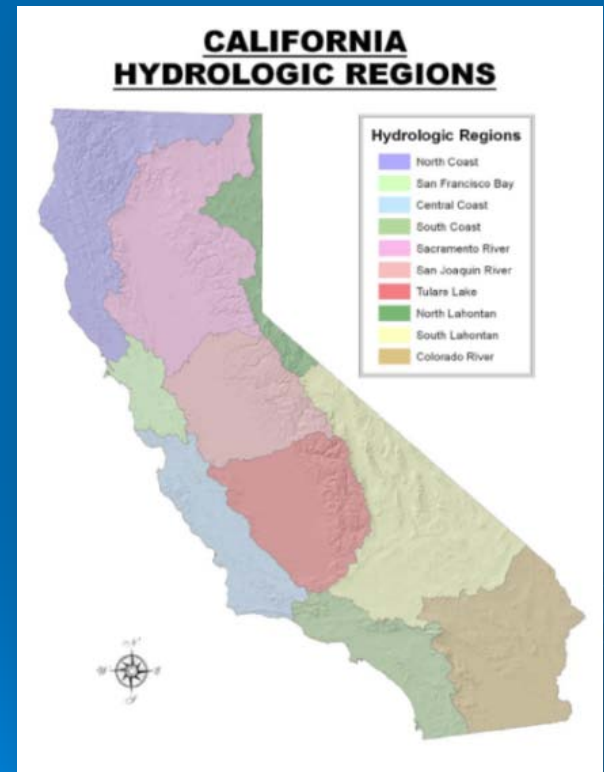
- Update 2005 Strategic Plan informed Proposition 84 language
- Update 2009 Strategic Plan informed IRWM financial assistance criteria
- Both will evolve into the basis for developing Update 2013 Finance Plan *Guiding Principles and Criteria for Prioritizing State Funding, Recommendations* and other sections
- High-level finance recommendations will be published in Update 2013 Strategic Plan



Regional Reports

Relevance to Finance Plan

- Articulation of information, data, challenges, opportunities and regional resource management objectives
- Funding proposals and priorities will be derived, in part, from regional reports
- Ensure regionally relevant solutions



- Finance Plan policy and action recommendations will draw from menu of Resource Management Strategies
- Serves as one source of information for estimating statewide IWM costs through 2050



Ways to Access Water Plan Information

- Visit the *Water Plan Web Portal*
www.waterplan.water.ca.gov

California Water Plan eNews
Special Edition
March 30, 2010

This weekly electronic newsletter is designed to keep you current on California Water Plan news. We welcome comments, suggestions and any news tips that may be of interest to water planners.

California Water Plan Update 2009
Integrated Water Management
Bulletin 160-09 Department of Water Resources

California Water Plan Update 2009 released

Today, the California Department of Water Resources released the California Water Plan Update 2009 – a product of four years of collaboration. It's a water plan for the entire state and is available online. Integrated water management and sustainability is the thread of continuity throughout Update 2009. It gives all Californians a new direction for water decisions about such challenges as threatened ecosystems, the uncertainties of climate change and a rising sea level, and population growth. It spells out the urgencies that demand action, such as dealing with longer and more pronounced droughts, increased flood risk, threats to the environment, impaired water bodies, and aging infrastructure. Update 2009 also introduces new water planning methods with the use of scenarios and response packages while evaluating the effects of future climate change.

- [Read Press Release](#)
- [Read Special File](#)

The Water Plan came from a steering committee representing 21 State agencies, a 45-member public advisory committee, nearly 40 regional workshops held around the state, about 150 meetings with more than 26,500 persons/hours of conversations about our water. Update 2009 is the State's blueprint for sustainability and integrated water management and marks a significant new chapter in the way California manages its water resources.

Secretary's Message
Secretary of California Natural Resources Agency Letter Snider delivers his message about Update 2009.

Highlights
The Highlights section of Update 2009 provides an easy-to-read overview of the document.

Strategic Plan, Volume 1
Update 2009 includes a strategic plan with a vision, mission, goals, recommendations, and implementation plan.

Resource Management Strategies, Volume 2
Think of these strategies as tools in a tool kit. There are nearly 30 strategies for attaining integrated water management.

Director's Message
Director of California Department of Water Resources Mark Coughlin reflects the forward to Update 2009.

Click on links below for more information.
[Upcoming Meetings](#) [Water Plan Web site](#)



- Subscribe to *Water Plan eNews*
a weekly electronic newsletter
www.waterplan.water.ca.gov/enews

California Home Governor Home Amber Alert Tuesday, April 27, 2010

Welcome to **California**

DEPARTMENT OF WATER RESOURCES
PLANNING AND LOCAL ASSISTANCE

California Water Plan

Home > Update 2009 - Integrated Water Management
Bulletin 160-09 Department of Water Resources

California Water Plan Update 2009
Integrated Water Management
Bulletin 160-09 Department of Water Resources

Release and Contact Information

| | |
|--|---------------------------------|
| | eNews Special Edition 1.1 MB |
| | Rollout File 0.9 MB |

Secretary's Message

| | |
|--|--|
| | The strategies outlined in these pages provide the means to manage resources comprehensively, from snowmelt to estuary, from field to tap, and all of the uses within the watershed. Video of former Director Snider giving his address at the Preliminary meeting on |
|--|--|